

REMARKS

This Amendment is submitted simultaneously with filing of the request for continuing examination.

With the present Amendment, applicant has amended claim 1, the broadest claim on file, so as to more clearly define the present invention and to distinguish it from the prior art.

Before the analysis of the prior art, it is believed to be advisable to explain to the Examiner the subject matter of the present invention and its new features.

The present invention deals with a method of producing light metal castings in a closed regulating loop for obtaining periodically repeating casting procedures, which is provided by executing a manufacturing process with a high pressure difference between a casting retort 1 arranged in an upper part of the device and a casting mold 19 arranged in the lower part of the device. For this purpose an overpressure is produced in the casting retort 1 and the vacuum is produced in the casting mold 19. Thereby the required high acceleration of the cast material during the casting process is achieved.

During the short-term opening of the valve unit 3, the liquid metal flows into the casting mold 19. For each casting part to be cast, depending on the losses in the casting retort 1, a multiple of the resulting metal quantity of the cast part is supplied, as explained in the present application.

In contrast to the Examiner's opinion, the solidification of the cast material is performed not by a simple withdrawal of the casting tool. The withdrawal movement of the casting tool is performed only after the basically completed solidification.

As described in the specification, the solidification process is performed by withdrawal of the heat energy through the base support 5 and the automatic withdrawal of the casting mold 19. The withdrawal has an additional supporting action.

Turning now to the reference and particularly to the patent to Brown (DE 431865), it can be seen that this reference discloses a device in which, without interference of the operating person in the periodic course, the individual casting process is not possible. The periodic course of the casting process is possible only with interruption after each individual casting

process. The multiple quantity of the metal quantity of the corresponding cast part is not supplied for the casting process.

When the casting process is finished, the temperature of the device must be reduced and a cleaning of the filling opening 46 (column 2, paragraph 6) as a rigid connecting part between the casting tool and the casting mold must be performed. The required cleaning process is caused by oxide compounds formed in the connecting part or so-called "frozen" residuals of the casting material formed after the opening.

It should be mentioned in addition that the supply of the solid light metal by the sluice device 11 is just an alternative supply of the cast material. Also, a purely exclusive supply of liquid cast material is possible, for performing the periodic casting process.

It is believed that the new features of the present invention which are now defined in the amended claim 1 are not disclosed in this reference.

The patents to Jorn, Blum, Mueller and JP '559 have been also considered. They also do not teach the new features of the present invention which are now defined in the amended claim 1.

The Examiner rejected the original claims as being obvious over the references. It is respectfully submitted that the references do not teach the new features of the present invention, and they no hint or suggestion that such features can be provided in them. In order to arrive at the applicant's invention from the teachings of the references, the references have to be fundamentally modified. However, it is known that in order to arrive at a claimed invention, by modifying the references the cited art must itself contain a suggestion for such a modification.

This principle has also been consistently upheld by the U.S. Court of Customs and Patent Appeals which, for example, held in its decision in re Randol and Redford (165 USPQ 586) that

Prior patents are references only for what they clearly disclose or suggestion; it is not a proper use of a patent as a reference to modify its structure to one which prior art references do not suggest.

As explained herein above, the present invention provides for the highly advantageous results which can not be accomplished by the methods disclosed in the prior art. It is well known that in order to support a valid rejection the art must also suggest that it would accomplish applicant's results. This was stated by the Patent Office Board of Appeals,

in the case *Ex parte Tanaka, Marushima and Takahashi* (174 USPQ 38), as follows:

Claims are not rejected on the ground that it would be obvious to one of ordinary skill in the art to rewire prior art devices in order to accomplish applicants' result, since there is no suggestion in prior art that such a result could be accomplished by so modifying prior art devices.

In view of the above presented remarks and amendments, it is believed that claim 1 should be considered as patentably distinguishing over the art and should be allowed.

The other claims should also be considered as patentably distinguishing over the art because it defines the features in combination with claim 1 provide for a patentable subject matter.

Reconsideration and allowance of the present application is most respectfully requested.

Should the Examiner require or consider it advisable that the specification, claims and/or drawings be further amended or corrected in formal respects in order to place this case in condition for final allowance, then it is respectfully requested that such amendments or corrections be

carried out by Examiner's Amendment, and the case be passed to issue. Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing this case to allowance, he is invited to telephone the undersigned (at 631-549-4700).

Respectfully submitted,



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